What is claimed is:

1. A coding apparatus for a digital signal comprising:

a band division filter for dividing an input digital signal into signal components in a plurality of frequency bands;

a block floating circuit for implementing, every block, floating processing to an output signal of the band division filter;

a plurality of orthogonal transform circuits for orthogonally transforming respective output signals on the time base of the block floating circuit to signals on the frequency base; and

an adaptive bit allocation encoder for dividing output signals of the orthogonal transform circuits into signal components in critical bands to adaptively allocate bit numbers thereto on the basis of allowed noise levels every respective critical bands,

wherein the length in the time base direction of the block is caused to be variable, and the length in the time base direction of the block and a floating coefficient at the time of the floating processing are determined on the basis of the same index.

2. A coding apparatus for a digital signal as set forth in claim 1, wherein said index is given by a logical sum of absolute values of respective words.

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3.   A coding apparatus for a digital signal comprising:

a band division filter for dividing an input digital signal into signal components in a plurality of frequency bands;

a block floating circuit for implementing, every block, floating processing to an output signal of the band division filter;

a plurality of orthogonal transform circuits for orthogonally transforming respective output signals on the time base of the block floating circuit to signals on the frequency base; and

an adaptive bit allocation encoder for dividing output signals of the orthogonal transform circuits into signal components in critical bands to adaptively allocate bit numbers thereto on the basis of allowed noise levels every respective critical bands,

said apparatus further comprising:

allowed noise level calculation means for calculating allowed noise levels obtained within the critical band every critical band; and

comparison means for comparing a corresponding allowed noise level with a minimum audible level to raise or set a flag when the minimum audible level is higher than the allowed noise level,

wherein, in the critical band where the comparison raises the flag, the level of the minimum audible curve is selected as the allowed noise level.

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4. A coding apparatus for a digital signal as set forth in claim 3, wherein the allowed noise level calculation means is constructed to calculate an allowed noise level from an energy every critical band and the minimum audible curve, etc., and to further calculate an allowed noise level on the basis of an error between an output information quantity and a bit rate target value of the final coded data.

5. A coding apparatus for a digital signal as set forth in claim 4, wherein bits allocated to respective unit blocks are increased or decreased by using an output of the allowed noise level calculation means.

6. A coding apparatus for a digital signal comprising:

a band division filter for dividing an input digital signal into signal components in a plurality of frequency bands;

a block floating circuit for implementing, every block, floating processing to an output signal of the band division filter;

a plurality of orthogonal transform circuits for orthogonally transforming respective output signals on the time base of the block floating circuit to signals on the frequency base; and

an adaptive bit allocation encoder for dividing output signals of the orthogonal transform circuit into signal

components in critical bands to adaptively allocate bit numbers thereto on the basis of allowed noise levels every respective critical bands,

said apparatus further comprising:

allowed noise level calculation means for calculating allowed noise levels obtained within the critical band every critical band; and

comparison means for comparing a corresponding allowed noise level with a minimum audible level to raise or set a flag when the minimum audible level is higher than the allowed noise level,

wherein the length in the time base direction of the block is caused to be variable, and the length in the time base direction of the block and a floating coefficient at the time of the floating processing are determined on the basis of the same index, and

wherein, in the critical band where the comparison means raises the flag, the level of the minimum audible curve is selected as the allowed noise level.

7. A coding apparatus for a digital signal as set forth in any one of claims 1 to 6, wherein said orthogonal transform circuit is constructed as a Discrete Cosine Transform (DCT) circuit.